

EHR ADVISORY
COMMITTEE MEETING
May 31 – June 1, 2018

Francisco Rodriguez

EHR AC Chair

Chancellor L.A. Community College District





Jim Lewis
Acting Assistant Director
Education and Human Resources



EHR Program Organization Chart

Office of the Assistant Director – Directorate for Education and Human Resources

Division of Research on Learning in Formal and Informal Settings (DRL)

EHR Core Research (ECR)¹

Advancing Informal STEM Learning (AISL)

Computer Science for All (CS for All: RPP)

Discovery Research K-12 (DRK-12)

STEM-C Partnerships (STEM+C)

Innovative Technology Experiences for Students and Teachers (ITEST)² Division of Undergraduate Education (DUE)

EHR Core Research (ECR) 1

Advanced Technological Education (ATE)

Robert Noyce Teacher Scholarship Program (NOYCE)

Improving Undergraduate
STEM Education: Education
and Human Resources
(IUSE: EHR)

NSF Scholarships in STEM (S-STEM)²

Division of Graduate Education (DGE)

EHR Core Research (ECR) 1

Graduate Research Fellowship (GRF)³

NSF Research Traineeship Program (NRT)³

CyberCorps: Scholarship for Service (SFS)

Project and Program
Evaluation (PPE)

Funded NSF-Wide

Faculty Early Career
Development Program
(CAREER) 3

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)³ Division of Human Resource Development (HRD)

EHR Core Research (ECR) 1

Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE)³

Alliances for Graduate Education and the Professoriate (AGEP)

Centers of Research Excellence in Science and Technology (CREST)

Louis Stokes Alliances for Minority Participation (LSAMP)

Tribal Colleges and Universities Program (TCUP)

Excellence Awards for Science and Engineering (EASE)

Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)

Improving Undergraduate
STEM Education: HispanicServing Institutions
(HSI Program)

1. Cross-Directorate Funded

- 2. H-1B Visa Fee Funded
- 3. Funded NSF-Wide



National Science Foundation Update



Jim Lewis
Acting Assistant Director
Education and Human Resources



NSF Mission

"to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense; and for other purposes"





NSF INCLUDES



EHR

DIRECTORATE FOR EDUCATION & HUMAN RESOURCES





10 Big Ideas for Future NSF Investments







Frontier: Shaping the Future
Develop "smart" technologies and
environments to enhance the
human experience; assess their
impact on human behavior and
social systems.

RESEARCH IDEAS







Understanding the Rules of Life: Predicting Phenotype

Bridge the biggest gap in biological science by determining how the environment influences an organism's unique characteristics

PROCESS IDEAS



Growing Convergent Research at NSF
Use ideas and technologies from
widely diverse fields to bring about
solutions to societal problems and
profound questions.



NSF-Includes: Enhancing Science and Engineering through Diversity Tap the innovation inherent in America's diversity to strengthen the U.S. science and engineering enterprise.



Mid-scale Research Infrastructure Develop a nimble process to fund crucial scientific infrastructure projects that fall between traditional funding boundaries.



NSF 2050
Bold, forward-thinking research that transcends traditional approaches and pushes the frontiers of exploration.



Convergence Accelerators



Harnessing Data for 21st Century Science and Engineering



The Future of Work at the Human-Technology Frontier



STEM + C and DRK-12

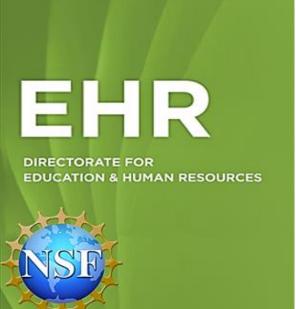








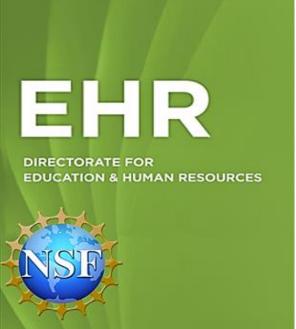
National Science Foundation



American Innovation and Competitiveness Act (AICA)

"The Director shall award grants on a competitive, merit-reviewed basis to Hispanic-serving institutions (as defined in section 502 of the Higher Education Act of 1965 (20 U.S.C. 1001a) to enhance the quality of undergraduate STEM education at such institutions and to increase the retention and graduation rates of students pursuing associate's or baccalaureate degrees in science, technology, engineering, and mathematics."

Enacted January 6, 2017



Consolidated Appropriations Act, 2017, Public Law 115-31

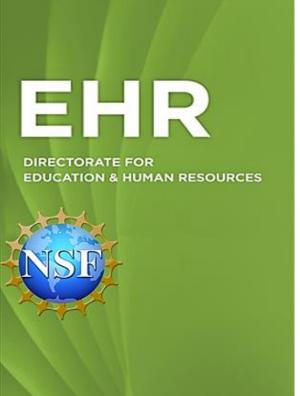
"The agreement also directs NSF to establish an Hispanic Serving Institution (HSI) program at no less than \$15,000,000 as authorized in 42 U.S.C. 1860-12. The agreement encourages NSF to use this program to build capacity at institutions of higher education that typically do not receive high levels of NSF grant funding."

Enacted May 5, 2017



Establishing an HSI Program

- NSF announces plans for Hispanic Serving Institution Program – June 6, 2017
- Goals to establish the program:
 - Build capacity at Hispanic Serving Institutions
 - > Focus on undergraduate HSIs
- A Subcommittee of our Advisory Committee comprised of HSI campus leaders provided advice regarding the solicitation.
- Dear Colleague Letter to fund conferences
- Solicitation Released (NSF 18-524)



Dear Colleague Letter: Improving Undergraduate STEM Education in Hispanic Serving Institutions

NSF 17-092

Dear Colleagues:

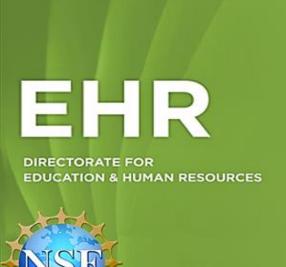
With this Dear Colleague Letter (DCL), the National Science Foundation (NSF) is calling for submission of conference proposals to inform the design of NSF's new Hispanic-Serving Institution (HSI) program, to be established in fiscal year 2018. Proposed conferences are expected to result in the identification of the most critical challenges and opportunities regarding undergraduate STEM education at two-year and four-year Hispanic-Serving institutions of higher education, and potential actionable solutions that fall within NSF's mission, policies, and practices.



HSI Conference Awards

- University of California-Irvine January 22-24, 2018
- University of Houston February 14-16, 2018
 University of Arizona November 18-20, 2017
- Nova Southeastern University, FL December 11-12, 2017

Submissions received July 6, 2017



HSI Conference Awards

- El Centro College, TX February 27-28, 2018
- Laredo Community College, TX March 21-23, 2018
- University of Texas-El Paso, TX March 29-30, 2018;
 University of Miami, FL April 26-27, 2018;
 American Society for Engineering Education, UT date TBD
- California State University, CA April 25-27, 2018
- Northwestern Illinois University, IL May 3-4, 2018
- CUNY City College, NY May 23 25, 2018
- University of Puerto Rico, PR November 8-9, 2018

Submissions received September 30, 2017



Listening to the Field

Three NSF Listening Sessions in mid-August 2017

- ➤ 300 Participants
- > 100 Institutions

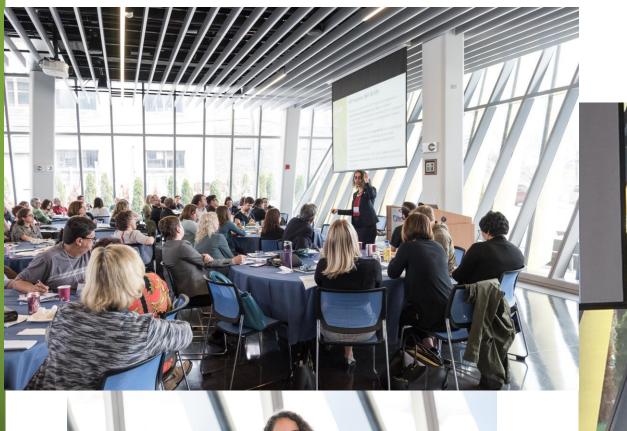
SACNAS Conference Listening Session

> 25 Participants/Students



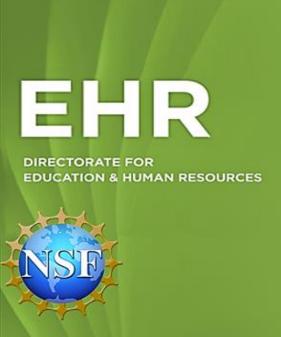
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Lessons Learned from HSI Conferences









HSI Solicitation

Improving Undergraduate STEM Education: Hispanic-Serving Institutions (HSI Program)

PROGRAM SOLICITATION NSF 18-524



National Science Foundation

Directorate for Education & Human Resources Division of Human Resource Development Division of Undergraduate Education

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

March 06, 2018

Posted December 7, 2017

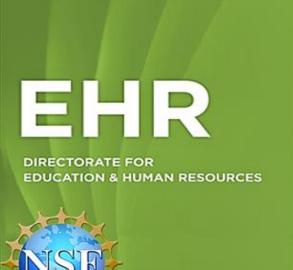


HSI Program Tracks

Track 1:
Building
Capacity

Track 2:
HSIs New
to NSF

Resource Hub



News Release 18-001

NSF makes first awards through Hispanic-Serving Institutions Program

Funding will bolster STEM capacity at HSIs



Alexandra Coso Strong will lead an HSI Program conference on engineering education.



HSIs and NSF INCLUDES

Design and Development Launch Pilot Lead Institutions &

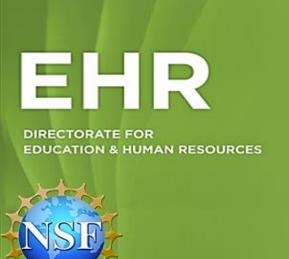
Partner Institutions

California State Polytechnic Univ-Pomona
California State University-Dominguez Hills
California State University-East Bay
California State University-San Bernardino
Central New Mexico Community College
Citrus College
City Colleges of Chicago-Malcolm X College
City College of NY - Dean of College of Eng.
CUNY City College
Florida International University
Merritt College

Northern New Mexico College
Saddleback College
Texas State University
Truckee Meadows Community College
University of California-Merced
University of New Mexico-Los Alamos
University of the South Pacific, Marshall Is.
University of Puerto Rico-Carolina
University of Texas at San Antonio
University of Texas at El Paso

New Mexico State University-Dona Ana

New Mexico State University-Main Campus



NSF INCLUDES Update

Design and Development Launch Pilots

- 70 Launch Pilots
- 760 Partners

Coordinat

- Provide increase communication interoperability support, and a the network of alliances.
- Blue-Ribbon Pattern top proposals.

On-Ramps

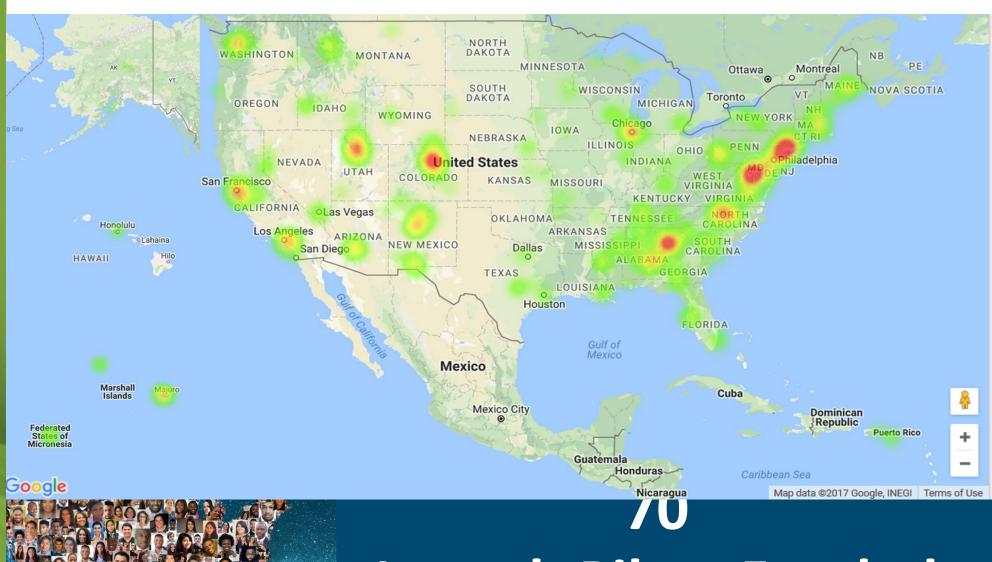
- Summit held January 8-10
- Receiving proposals for conference
- Encouraging supplements to existing centers.
- DCL deadline April 16

Allia

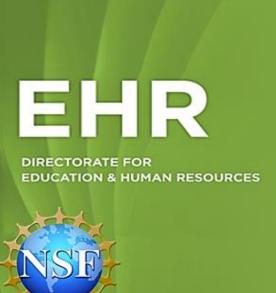
Proposa last wee

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NSF INCLUDES



Launch Pilots Funded



Launch Pilot Strategies

to address a particular broadening participation challenge







projects











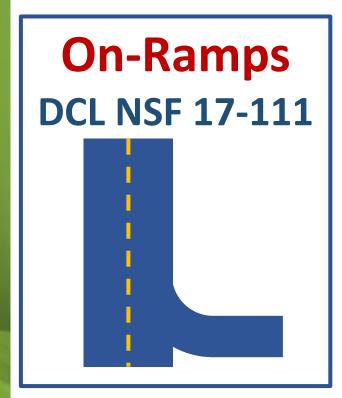
projects

Note: Some projects have goals and objectives that fall into more than one category.

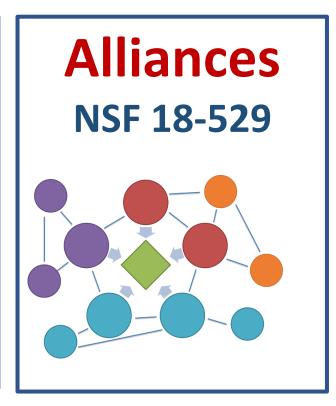
Image credits: Clker.com



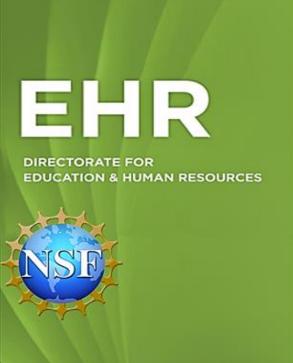
NSF INCLUDES IN FY 2018







Launch Pilots from FY16 & FY 17



Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR)

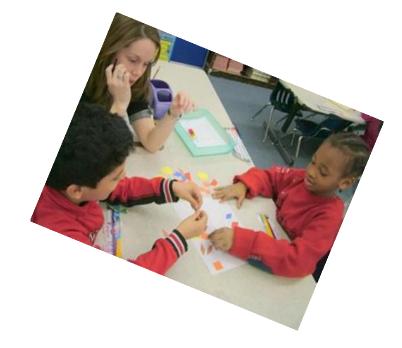
PROGRAM SOLICITATION

NSF 17-590



Robert Noyce Teacher Scholarship Program (Noyce)





Noyce (NSF 17-541)